**LANGDON PARK SIXTH FORM**

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| **Subject: Mathematics** | **Year: Y12** | **Topic 5: Coordinate Geometry** |

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| ***What and Why*:** Extending your fluency in solving all sorts of problems using Coordinate geometry – building on work you did in GCSE on lines. Circles and tangents and normals to curves |

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| **Straight lines*** Gradient
* Intercept
* Finding equations from points
* Different forms of equations of lines
* Perpendicular and parallel lines
* Negative reciprocal relation of gradient
* Properties of shapes and proof using lines and gradients
* Tangents and normals
* Intersection of lines and of lines and curves
* Coordinate geometry problems
 | **Circles*** Equation of in different forms
* Finding the centre from equation
* Finding the radius from equation
* Completing squares to find centre and radius give equation
* Relation between radius and tangent
* Distance in and from circle
* Intersections with lines and distances from points
* Circle geometry problems
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| **Specification point** | **Pre-reading** | **Application and Assessment (date)** | **Independent learning** | **Extension – Cultural Capital and Reading** |
| B3, B7, B8, B9, B11, C3, C4, E1, E3, E4, E5, E8,  | **Topics you should be confident in prior to unit:** * Linear and quadratic functions, Quadratic formula
* Transformations and vector notation, Sketching graphs

**Websites**[**http://www.a-levelmathstutor.com/functions.php**](http://www.a-levelmathstutor.com/functions.php) | * End of unit assessment
* 50% seen
* 50% unseen
* 90% pass needed or resit required.
 | Kerboodle Online LoginMy MathsExam SolutionsMaths Genie  | **Online Mathematical articles and content can be found here:** <https://nrich.maths.org/5748> - women in mathematics<https://nrich.maths.org/6843> - the history of trigonometry. |

**Pre-assessment content review**

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| I feel secure in | I need to focus on | My action plan |

**Pre-assessment skills review**

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| I feel secure in | I need to focus on | My action plan |

**Post-assessment review**

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| Weaknesses in content knowledge | Skills I need to focus on | My action plan |
| Retest / review – teacher and student comment |

**Revision planning**

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| Spec point | Notes complete | Revision materials | Past paper Qs  | Timed conditions |
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